Lisa Young

Mending the Past One Fragment at a Time

Archeological Conservation as a Scholarly Resource

In 1997, archeologists from the National Park Service (NPS) and John Milner Associates uncovered three well and privy features during an archeological testing and monitoring phase on Independence Park in Philadelphia, Pennsylvania. The archeologists decided to fully excavate these features, as they were to be impacted and destroyed when later development of the site took place. A contract conservator was consulted during the excavation phase of the project, and the artifacts were recovered, sorted, and stabilized in the field for transport to the laboratory. The more sensitive, or unstable artifacts, were routed directly to a professional conservator for treatment. Other waterlogged artifacts such as wood, leather, bone, and tin-glazed ceramics were packaged and transported in containers of water and were set aside for possible conservation in the future.

Leather after conservation treatment.

After the initial artifact processing stage, the materials were transferred to the NPS Applied Archeology Center in Silver Spring, Maryland, for further examination and analysis. Mr. Paul Inashima, project director, recognized the need to further conserve and analyze many of the materials, and approached the NPS for funding to perform conservation on particular groups of artifacts. Initially, a small contract was awarded to specifically conserve and reconstruct 25 ceramic vessels. The facility in Silver Spring was fully outfitted with a working archeological conservation laboratory, although it lacked a permanent conservator. For this project, much of the needed equipment, supplies, and materials was already in place, and only a few additional chemicals and disposable supplies had to be purchased. For more than two years, conservation of the collection was carried out and over 7,500 objects were treated. Each material group was examined by the archeologist and the conservator prior to beginning any treatments, and an estimate for time, labor, and supplies was prepared and submitted for approval. While the park archeologist was fortunate to receive funding to support each step, there was always the uncertainty of knowing whether or not funding would be approved for each individual contract and whether we could move to the next stage of the project. For this reason, conservation tasks were carefully planned and implemented to fit into each individual "contract" ensuring that treatments could be completed with the funding available.

From a conservator's viewpoint, all of the artifacts undergoing conservation needed to receive the same standard of treatment to ensure long-term preservation. However, the archeologists and project managers wanted to treat as many artifacts as possible quickly and inexpensively. Close cooperation between all the project team members allowed us to find ways to meet these goals, while not jeopardizing the standard of treatment performed on any one group of artifacts. This standard meant that for every artifact treated, a before-and-after-treatment photograph was taken, an illustration of the artifact was produced, and conservation documentation was completed and archived with the site records.

The majority of the artifacts treated consisted of ceramics and glass. Many of the vessels cross-mended, and could be fully re-constructed, missing only a few, very small fragments. While many archeologists do not typically spend this amount of time reconstructing vessels, this collection is rare in that it provides a unique look into the socio-economic lifeways of Philadelphians during the 18th century. Many of the vessels were manufactured from local clays and the vessel forms have been linked to local potters who have been documented as having traveled and worked in other neighboring cities such as Alexandria, Virginia.

Approximately two-thirds of the ceramics were treated during the first year of the project. An early assessment of the collection indicated that many of the ceramic vessels were composed of like materials, suffered from the same degree of degradation, and often required similar conservation treatment. Therefore, it was feasible to train laboratory technicians and student interns to assist with both the documentation and reconstruction of the vessels. As the project grew, and more archeologists began to hear about the ceramics being mended at the Applied Archeology Center, other NPS employees and archeologists began to volunteer their time on the project. In return, hands-on conservation training was provided to volunteers as a means of treating more vessels.

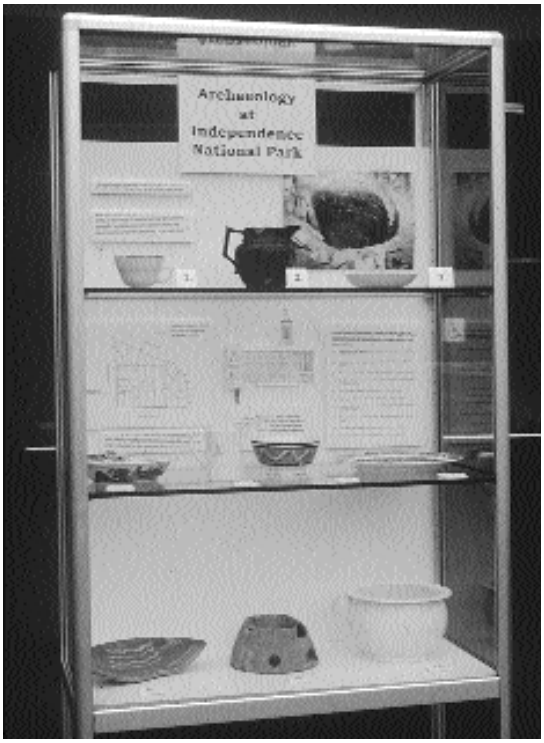

Exhibit on conservation at Independence National Historical Park, Philadelphia, Pennsylvania.

The next two largest groups of materials treated consisted of waterlogged leather and wood. Over 500 leather objects required conservation including items such as nearly complete shoes, shoe soles and uppers, cut fragment, and pieces of larger garments. The wooden artifacts varied more in size and function, as well as being manufactured from different types of wood species. Typically, whenever a large amount of one material is discovered in a single archeological feature, the conservator makes decisions regarding the appropriate treatment method, while considering other issues, such as time management, and the space and resources available to treat large quantities. When over 1,000 pieces of waterlogged wood undergo conservation treatment, it may seem advantageous to batch-treat the objects, but this may not always be possible if a variety of woods has been used or if there are significant differences in deterioration between objects.

During the second year of the project, four conservation assistants were hired to work part-time to assist with conservation of the waterlogged wood and leather, as well as the remainder of the ceramics. Minimally, each artifact had to be safely removed from water, dried out with minimal shrinkage, identified, and curated. Experiments were conducted in order to find a way to bring the artifacts out of the water while minimizing loss to the artifacts and the technological and historical information they contain. Various drying methods including controlled slow drying, air-drying, solvent drying, and freeze-drying were conducted on both wood and leather samples from the site. Initial results indicated that controlled slow drying after initial surface cleaning and desalination could be an acceptable drying method for those wood and leather samples that would not undergo full conservation treatment. This type of research information is invaluable to the conservator or archeologist who may be working in remote countries or less than ideal laboratories even here in the United States where equipment such as freeze-dryers and even fume hoods are not available for conservation work.

Conservators who work with large, diverse collections of archeological materials are presented with challenges and issues that are unique. With many archeological projects, particularly in the United States, a conservator is often brought into the archeological process after excavation has

already begun. Frequently a budget for conservation work has not been included within the overall project budget, leaving the archeologist and project managers to seek out other funding sources and creative ways to secure money for conservation of the artifacts. As described above, volunteers, student interns, and laboratory technicians were used throughout the project to assist with conservation tasks, documentation and treatments. This arrangement was primarily made with the archeologists in an attempt to keep overall project costs down. The necessity to train volunteers and students, with different experience levels, must be taken into consideration when preparing a budget at the beginning of a project. Both the archeologist and the conservator must address these challenges before the first shovel enters the ground, and communication throughout the entire process is essential for both the good of the project as well as the artifacts.

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Photos by the author.

Jeffrey Maish

Archeological Conservation Display

The American Institute for Conservation (AIC) and Objects Specialty Group presented a staffed display on archeological conservation at the annual meeting of the Society for Historical Archaeology (SHA) in Long Beach California, in January 2001. The display was funded jointly by the AIC and the Intersociety Relations Committee of the SHA. Entitled "Gone with the Wind (but it doesn't have to be)," it presented some of the main areas of involvement of object conservation within archeology. The display also attempted to address some of the conceptions/misconceptions held about conservation. The central panel included sections on some principal areas of conservation concern: the definition(s) of conservation; planning for conservation; on-site participation, including stabilization; lifting and transport; laboratory conservation and research; and storage. The "urban myths of conservation" panel presented conservation not as in competition, but as a complement to archeology. A segment of the excavation responsibilities could therefore be turned to a conservation team member who could perform tasks that contribute to research while at the same time freeing time for the archeologist to perform his or her research. A third "did you know?" panel presented some general knowledge facts about sites, such as microenvironments and their potential effects on materials, and subsequently, the interpretation of the site material.

The project evolved and was organized through the efforts of the Archaeological Conservation Discussion Group of the Objects Specialty Group. This group has a principal goal of establishing a continuing dialogue with the archeological community. The poster presented archeological conservation in a general and approachable manner with the aim of informing attendees of issues involved in conservation on site while also presenting the goals of the AIC. Conservators were on hand to discuss the poster and also to receive feedback from archeologists on conservation needs and challenges. The display itself was made with portability and flexibility in mind so that it can be modified to fit specific archeological audiences.

Conservators at the SHA display reported a high level of interest and received many helpful suggestions. It is hoped that the small display can travel to future regional and national archeological conferences and provide a further point of contact with the AIC and conservation community. Currently, brochures are also being developed to provide the same information to a much wider audience. For more information please contact the AIC office at AIC, 1717 K. St. NW Suite 200, Washington DC 20006, 202-452-9545, or visit the AIC web site at <infoaic@aicfaic.org>.

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